programming of the memory cell and said second level voltage maintains a memory state of any memory cell which has been programmed;

sensing a memory state of one or more given memory cells coupled to respective given data latch circuits in which the data of the first logic level is stored and verifying successful programming of each said one or more given memory cell based on the sensed memory state of said one or more given memory cells;

modifying the level of the data stored in said given data latch circuit or circuits, from the first logic level to the second logic level upon verification of successful programming of said given memory cell; and

stopping application of the programming voltage to said word line if data stored in all of said plurality of data latch circuits are the second logic level.

101. A method according to claim 100, wherein said programming voltage applying step comprises applying a programming voltage which is higher than said first level voltage and said second level voltage.

102. A method according to claim 100, wherein said first level voltage or second level voltage applying step comprises applying the first level voltage which changes a threshold voltage of the corresponding memory cell for programming.

103. A method for programming a nonvolatile semiconductor memory device including a plurality of memory cells, comprising the following steps of:

storing control data which defines whether or not write voltages are to be applied to respective of said memory cells;

selectively applying said write voltages to a part of said memory cells, which part is selected according to the stored control data;

determining actual written states of said memory cells; and

selectively modifying said stored control data based on a predetermined logical relationship between the determined actual written states of said memory cells and the stored control data, thereby applying said write voltages only to memory cells which are not sufficiently written to achieve a predetermined written state.

104. The method according to claim 103, further comprising a step of initially setting initial control data of said control data stored, and a step of modifying said initial control data in accordance with said predetermined logical relationship.